

COLLIDER ACCELERATOR SHUTDOWN SCHEDULE

R. Zaharatos – April 8, 2003

**SHUTDOWN PERIOD(EIGHT HOURS): WEDNESDAY, APRIL 9, 2003 -
0800 TO 1600HRS**

AGS – CONTROLLED ACCESS ENTRIES – 0930-1500HRS

BOOSTER – CONTROLLED ACCESS ENTRIES – 0900-1400HRS

LINAC – CONTROLLED ACCESS – NO ACCESS

**RHIC TUNNEL REMOTE CONTROLLED ACCESS PERIOD – 0815HRS –
1400HRS**

**RHIC RESTRICTED ACCESS AREAS – IR'S: BRAHMS(8hrs),, AND
STAR(8HRS). TUNNEL ZONES: Sect. 2, 4, 6, 7z1, 8z2,9z1). Tunnel zones will
be swept as soon as work has been completed**

**NSRL TUNNEL EXPERIMENTER'S SECTION – SWITCH TO RESTRICTED
ACCESS AT END OF STUDIES**

PRIMAY JOBS:

JOBS STATUS CODE: **C** complete **IP** in-process **RS** reschedule
CAN cancelled * additions

AGS TUNNEL

- 1 C15 Polarimeter – replace silicon and preamplifiers(Bm. Comp./Vacu)
- 2 Replace control card for C17 turbo which may shutdown sector.(Vacu)
- 3 Check K3 for a bad cable or ion pump(Vacu)
- 4 AC Dipole – inspect/check magnet(Bm. Comp.)

AGS EXTERNAL

- 1 AC Dipole – test horizontal power amplifier(Bm. Comp.)
- 2 Siemens – replace snubber for pedestal #3.
- 3 Siemens – take measurement of L4 cubicle area with vendor for new switches for transferring between West. and Siemens transformer
- 4 Siemens M/G – brushes inspection and replacement

BOOSTER TUNNEL

- 1 A3 RF water – remove measure flow and install flow control valve(6hrs)
- 2 BTA QV6 – rebuild measure flow

BOOSTER EXTERNAL

- 1 Replace all fans in Euorcard p.s. interface chassis in BMM(930A, Ctrl.s.Grp.)
- 2 BPM's(Bldg. 914) – phase match cables(RF Grp., requires Booster LOTO)
- 3 BMMPS device controller – check fans and replace as needed.
- 4 BMMPS – test advisor and PLC inputs latching, Booster Mags. And Ref. Mag. Interlocks
- 5 P.S. for QV6 – test magnet water interlocks, check brkr. trip ckt..
- 6 Check BMMPS PS ID firing bucket power supplies(intermittent LED pulsing indication)
- 7 Correctors A1 and A3(bldg. 914) – replace local/remote switches.

NSRL

- 1 Set-up jobs in experimenter's tunnel section(Phillips)

ATR LINE

- 1 Proton Radiography – cabling for experimental set-up
- 2 BLM System – inspect for potential additions(Bm. Comp.)
- 3 PTR experiment magnets check out(Fes)

LINAC EXTERNAL

- 1 Change 7835 Cavity in Mod 6
- 2 Replace driver cart in Mod 1
- 3 Install new 400 watt RF amp in Buncher 1
- 4 Change Linac timing program

RHIC TUNNEL

- 1 P.S.'s – repairs(See List)
- 2 Roman Pots in sectors 1 & 2 – calibration(Pearson) and administrative controls testing(Bm.Inst.)
- 3 Lead flow temp. measurements(Cryo/Sadinsky)
- 4 Cryo Controls – repair thermal switch at 4Q6(Gate 4GE2/Kollmar)
- 5 Fire alarm system repairs at 12 o'clk.
- 6 Injection Kicker(sect. 6) – swap out Blue #4(Bm. Comp.)
- 7 Vacuum – replace gauge g7-cc-pi2 in sect. 7
- 8 Vacuum – leak check Bi5(sect. 5)
- 9 Vacuum – measure leak rate at g7
- 10 Install two NMC Detectors and Stations at the Yellow Ring Roman Pots in sect. 1
- 11 Install two NMC Detectors and Stations at the Blue Ring Roman Pots in sect. 3
- 12 Cryo – repairs in sect. 4 at cryo cabinet 4Q6
- 13 Cryo – relocate temperature sensor related to ice ball investigation at cabinet 9Q14(Gates 10GE1 and 9GI1)
- 14 Remove measure flows in X and Y arcs.
- 15 IPM work in sect. 2(Connolly)

RHIC EXTERNAL

- 1 Complete the installation of the card reader at 4 o'clk(Gate and 1004B)

RHIC POWER SUPPLIES(Bruno)

Ice Ball Checks

Ice ball teams to be named.

No repairs outstanding. Repair team is **Rich C and Bob Mac and maybe Mitch** too. Will get others involved too so everyone can do repairs.

1004B Q6 and Q7 Time Constant Work

Try to have a new current reg card ready for yo4-qf6 and yo4-qd7

1004B Main p.s.'s Timing Resolver Work

I don't think we will have time to do this the next maintenance day.

Corrector Power Supplies: See Table below

1. Start checking corrector p.s. fans and rack fans since not many correctors to do.

Corrector P.S.	Problem On all of these check AC connections and DC connections at the magnet and power supply.	Comments – What was really done- What was found	<i>Serial Number</i>
Yo7-dod3-ps	Shows up as STBY-ERROR yet it is on. Do we want to swap out node card cable or the whole node card? This is the same node card that had other p.s.'s doing this. Each time we replace a cable for a p.s. it fixes the problem and then another one pops up.		
Bi5-oct3-ps	Tripped off once on 4/2. Swap out with a p.s. that has new micro and R and C mod.		
Yi2-tv4-ps	Does not show local on pet page when you put into Local. Investigate, possibly needs a new node card cable, try installing one, I think we have them in the trailer, check with Brian. Low priority. We probably should not touch it at all. Don't touch it yet.		

Magnet Work

Ceramic Feedthrough cleaning in sector 3 where ground fault was found.

Tq QPAIC in 1010A-Check J24

We may replace this cable

Permit Bypass Chassis in 1008B

Wing & Someone need to check it out, readback doesn't look right

Snake and Spin Rotator P.S. Work.

1. Swap out node card cables for yi7-rot3-2.3-ps (7C), yo8-rot3-2.3 (9A) and yo5-rot3-1.4(5C) (They tripped OFF).

IR Power Supplies

1. bo2-qd1-ps shows an AC phase flt when there is a QLI. If there is time take a look at this.
2. Possibly remove bo3-tq6 and/r yi10-tq5 because they each tripped on FET faults once and we may want to examine one and see if any FET's are blown. **Not Done and we probably won't do because a FET fault does not exist. It could be noise, a loose wire or a bad opto-coupler that caused the problem. Watch these for now.**
3. In 1010A, if there is time we may want to check more tq power supplies for shorted IGBT's by looking at the AC current during a turn ON. Looked at yo9-tq4, 5, 6. yi10-tq4, 5, 6 and bo10-tq4. Only yo9-tq4-ps was shorted. **Yo9-tq4 has been swapped out.** Possibly swap out firing card of y8-dh0-ps. **Not Done**
4. Screw in more 3u chassis cards. 1012A done. Half of 1004B done and some of 1002B done. Some done at 6b.
5. Replace broken fans in b12-q7, b12-dh0, yo4-qd7 and y-qtrim. All had one bad fan in the rear DC compartment.
6. Put main p.s. filter material in rear doors of tq racks.
7. Keep an eye on y12-dh0 (OFF problem) and y6-dh0 (large voltage ripple and spike). Nothing to do as of now. **Has not returned since March 17th when we replaced backplane.** Don't touch.
8. Keep an eye on yo4-qf2-ps. It caused a QLI on Sat 3/15/03 at 1:15 and Wed 3/19/03. It looks like the voltage spiked up on 3/15 and the p.s. started to oscillate on 3/19. **Has not returned. Don't touch.**
9. **Swap out fiber optic card for b2-dhx and see if glitches in error go away. We may want to look on the front of the p.s. to make sure this is real first.**
10. **Remove resistor packs in yi10-q89-qp and bi9-q89-qp and replace both with new resistor packs.**
11. bi8-tq4-ps error seems unusually low, we may want to swap out the current regulator card. Think about.

Tunnel Work

1. Tape down floor fans in the tunnel that cool magnet trees.

QPA Work

1. Start replacing all QPA D connector hardware?? (b2-dh0-qp, yo8-qf8-qp and yo8-qd1-qp done) **No One.**

Gamma-T Power Supplies

Go into alcoves and tighten AC connections of Gamma-T's in 3C, 7A, 7C, 9A. **No One.**

Snake and Spin rotator p.s. Work

Label the rest of the circuit breakers.

Quench Detector

Go around and check quench detector fans are working - **Dan O**

Valve Box Work

1. Need to replace flashers at top of valve boxes for 2b and 6b.
2. Check light control chassis at 10A because no green lights work.
3. Check green light above blue valve box in 1002B.
4. Light control chassis in 1008B needs to be fixed. Opto logic is reversed.

Sector 9 Lead Flow Temp Experiments

George and Cryo.

ATR Power Supplies

1. Run X-ARC90 in voltage mode. **Not done.**
2. Test SWM p.s. setpoint buffer. **Not done.**
3. Tom Nehring may swap circuit breakers 42 and 44, probably won't happen anytime soon. **Not done.**
4. If ground fault comes back on WQ3 p.s. try something else. AFB board was replaced 9:50 Wed 3/5/03. **Problem has not returned as of now.**
5. XARC90 and YARC90 phase sequence relay jumpered out. Decide what to do for fix. YARC90 phase sequence relay probably still good because LED lights. **Not done.**

Detailed Breakdown For 4/9/03

Correctors

1. **Brian and Gene** swap out node card in alcove 7C that feeds yo7-dod3-ps
2. **Brian and Gene** Swap out bi5-oct3-ps in alcove 5C because it trips off

Ice Ball Checks

1. **Rich Conte** checking Enter 4GE2 and check 4GI1 to 3GI1-bring repair bag and repair if simple otherwise get help.
2. **Jeff Wilke** checking 7GE1 to 3GI1
3. **Mitch** checking 8GE2 to 3GI1-bring repair bag and repair if simple otherwise get help.
4. Get **Bob Mac** to help with repairs if needed.

Alcove 5C Spin Rotators - Gregg and Rich K

1. Swap out complete 3u chassis and node card cable for yo5-rot3-1.4-ps

Alcove 7A Spin Rotators – Tom, Joe and Fred

1. Swap out complete 3u chassis for bo6-rot3-1.4-ps. (Did node card cable)
2. Swap out 3u chassis backplane of yi6-rot3-2.3-ps (Did node card cable)

Alcove 7C – Gregg and Rich K

1. Swap out 3u chassis backplane of yi7-rot3-2.3-ps and node card cable..

Alcove 9A– One of 2 other groups above or Ice Ball Teams when they are done

1. Swap out 3u chassis backplane of yo8-rot3-2.3-ps and node card cable.

Q89 Zero crossing problem

1. Don and help from Jim checking y6-q89
2. Ramping with new time constants in yi10-q89, bi9-q89 and b12-q89
3. In service buildings